SCIENTIFIC AMERICAN.

THE ADVOCATE OF INDUSTRY AND ENTERPRISE, AND JOURNAL OF MECHANICAL AND OTHER IMPROVEMENTS.

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THE
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RUFUS PORTER,—Editor.

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I've been Thinking.

I've been thinking, I've been thinking
What a curious world we're in!
Men are sleeping, eating, drinking,
Just as they have always been—
Beaux are strutting, dandies quizzing,
Misses toiling night and day,
Boys are sporting, girls are frizzing,
Grandmas fidgeting away.

Tom is crying, Mary singing,
John is laughing merrily;
Dust is flying, tea-bells ringing,
These have music, sure, for me:
Peasants toiling, rich men riding,
Staring with a lordly phiz;
Rogues through every crowd are gliding,—
Zounds, how queer a world it is!

Brokers shaving, sheriffs dunning,
Politicians pull your sleeve,
Printers scolding, wits are punning—
Jail-birds begging for reprieve;
Preachers warning, idiots ranting,
Bacchus, too, hath devotees—
Yonder wretch, your wife's gallanting,
What n deuced fool is he!

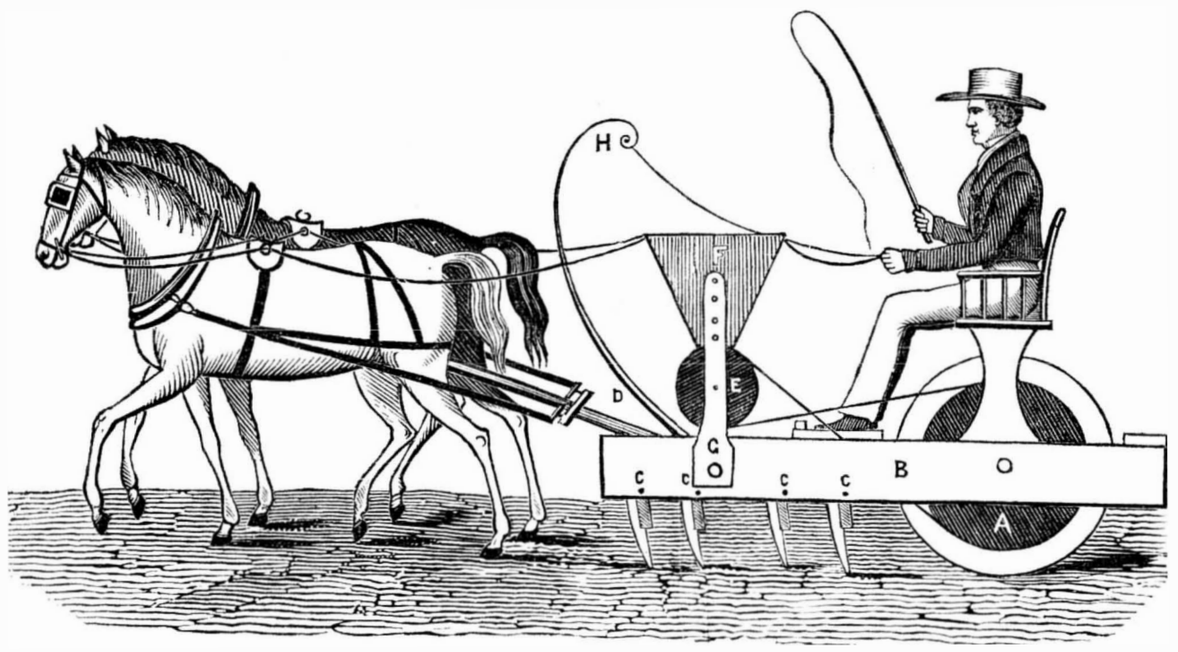
Lawyers spouting, clients list'ning,
Doctors prating of their skill,
Patients groaning, school-boys whistling,
Striving all old time to kill.
Pedagogues of science telling,
Milliners of pretty things—
Lovers stroll with bosoms swelling,
Listening while the night-bird sings.

Clouds are lowering, tempests howling,
Friends suspecting, foes are glad,
Children screaming, mistress scowling,
Merry bosoms now are sad.
Presto! they are gone for ever,
All is gay as it has been,
Sunbeams shine, the girls—O, never
What a curious world we're in!

"So, sir, you rashly vow and swear
You'll dance with none that are not fair;
Suppose we women should dispense,
Our hands to none but men of sense?"
"Suppose! well, madam, pray what then?"
"Why, sir, *you'd never dance again.*"

THE FIELD ENGINE;

A MACHINE FOR HARROWING, SOWING AND ROLLING AT THE SAME TIME.



EXPLANATION.—A cylinder A, eight feet in length and three feet in diameter, is enclosed in a square horizontal frame, of which the beam B forms one side, and is supported by the pivots of the cylinder, which is also termed the ROLLER. To the forward part of this frame a tongue D, pole, or pair of arms are attached, by which the machine is drawn forward; and are so adjusted as to hold the frame in a horizontal position. Four pieces of stout plank extend across from side to side of this frame, and are supported by pivots, c c c c, at each end. To the forward side of each plank are attached a row of triangular teeth, which extend downward so as to furrow the earth in their progress. The teeth in each row are placed about six inches apart, and those of the second row are so adjusted as to cut the ridges formed by the first,—and the third and fourth rows are arranged like the first and second. A small cylinder, E, is mounted over the space between the second and third planks, or harrow-bars, and is connected by a band to a grooved circle on the end of the roller cylinder; so that when in operation this small cylinder is put in motion rotarily. This is termed the "*Sowing Cylinder,*" and contains several small cavities, which are filled with grain from the hopper, F; which is of course sowed in front of the second and third rows of teeth, by which it is thoroughly imbedded, and the earth is smoothed by the roller-cylinder. The four harrow bars are not fixed permanently, but are held in their proper positions by springs; but not so strongly but that the harrow-teeth may give way, and clear themselves, whenever they strike a rock or root, so that the progress of the machine is not retarded. They are moreover so connected to a parallel shaft at G, that the driver may at any time raise the teeth out of the earth, by hauling back the lever H, and at the same time stop the motion of the sowing cylinder. This he has occasion to do, when turning at the end of the field, or while going from one field to another. A working model of this machine has been constructed, and there appears no reason to doubt its complete success; and when his engine and the Rotary Plow, (described in a former number,) shall be fairly introduced and drawn by the economical Steam Carriage, for fields and common roads, [described in No. 5,] we may expect to see our western farmers thriving in the business of raising wheat at fifty cents per bushel.

A MAN SUSPENDED BY THE THUMB.—A correspondent at Kingston furnishes us with the following:—Mr. Gray, of Providence, one of the painters on the Congregational Meeting House at this place, week before last ascended the steeple to take off the vane for gilding. The ladders reached the foot of the iron spire on which the vane turned, 12 to 15 feet above. Mr. Gray ascended the iron spire by grasping with his hand and twisting his legs round the bar of iron, which did not exceed two and a half inches in diameter, relying upon the ball, half way up the spire, to rest his feet on, and from which position he could take the vane off with his right hand. While he was in the very act, the ball on which his feet rested gave way and run down the spire. At this moment, Mr. Gray was raising the vane over the end of the spire, as he did so, the spire growing smaller made a convenient place for his thumb to keep the balancer in the gudgeon bore, when the ball gave way under his feet and he sunk. The vane falling back with his thumb in the gudgeon bore, held him fast, with his feet 3 or 4 feet above any thing to rest upon. He made two or three efforts to extricate his thumb, but without success, and after his strength was nearly exhausted he called for help. His life now depended upon the strength of his left hand. The consternation of the beholders was great—some running one way and some the other to obtain something to release the man from his perilous situation, while others turned away unwilling to witness the catastrophe which they apprehended in a few minutes. Mr. J. H. Clarke, one of the painters, came immediately up the spire, and placing his shoulders under the feet of the suspended man, at once relieved him. The scene was terrible to behold.—*Prov. Journal.*

THEORY OF WIND.—Heated air has a tendency to rise, and cold air rushes in to supply its place. Thus the heated air of the equitorial regions rises and gives place to a current sent from the polar regions which is a process that serves to equalize the temperature of the world. But the polar countries lying near to the axis of the sphere, the air from those regions has not received so much motion as that about the equator, or greater distance from the axis, wherefore it arrives at the equator, where the motion of the earth is greater. If it had no motion before, an east wind would be the consequence, and the force of that wind would be as the difference between the motion of the earth where the wind came from, and that where it arrived; but then it has a motion to the south; for it rushes into a vacuum left by the air which rises; so that the wind will not be from the east, but the northeast; and the number of degress north of the east from which it will blow will depend upon the comparative force of air from the north, to the difference between the earth's motion at the equator and at the polar region, from whence the air comes. As there must be a corresponding efflux from the equator higher up, according to this theory the wind should every where be northeast or southwest, but it blows in very different directions at different times and places, and this probably depends on the variations in temperature at different times and places.

LUCKY DREAM.—The forms of the small shot used by sportsmen, are exactly spheroidical. The manner in which this advantage is secured is ingenious. It is said that a Mr. Watt, a naive of Bristol and a plumber by trade, had a dream, in which he saw the whole contrivance. A person appeared before him on the top of a high tower, with a sieve in one hand, and a ladle of melted lead in the other; the lead was poured into the seive, which he shook violently, and the liquid metal fell in drops, like rain to the floor of the tower, but in its fall had recovered its solidified state. The imaginary person then descended from the tower and examined some of the shot; and among them Watt saw several that were not either perfectly round or had tails to them. To seperate these from the others, the man removed the shot to an inclined plane; those that were round ran down the plane, while those that were misshapen wriggled over the side. A perfect separation was thus effected. This was a lucky dream for Watt, as he sold his patent for 10,000*l.* and a similar method is still employed by manufacturers.

MORE SENTENCE THAN SENSE.—The writer of the following big sentences, seems to have grasped an idea which was too large for his English:

"When this terrestrial *Globe* shall have kindled up its mighty blaze and become melted with fervent heat, then will its atmosphere to expanded, and the Earth be thereby removed from its present orbit, and passing with inconceivable velocity toward the solar orb of our system, until it shall have reached sufficiently near that body to be repulsed by its motion, will be thrown into vast space with a force so great as to give length and eccentricity to its orbit equal to the distance of its present position from the Sun, until it shall have spent the force of its repulsion, and again return with a blaze of light and fire in its train, which shall continue until the number of its revolutions shall be sufficiently great to afford it time to again acquire density, and again to be clothed with matters, and again to resume its place, and move in its former orbit as a new creation."

DISEASE WITHOUT A REMEDY.—A certain lady waited on a physician, in a great trouble about her daughter. "What ails her?" said the doctor. Alas, doctor! I cannot tell; but she has lost her humor, her looks, her stomach; her strength consumes every day, so that we fear she cannot live." "Why do you not marry her?" That we would fain do, and have offered her as good a match as she could ever expect, but she will not hear of marrying." "Is there no other, do you think, that she would be content to marry?" "Ah, doctor! that is what troubles us; for there is a young gentleman we doubt not that she loves, that her father and I never consent to."—"Why look you, madam," replies the doctor gravely, being amongst all his books in his closet, "then the case is this, your daughter would marry one man, and you would have her marry another; in all my books I find no remedy for such a disease as this."

THE BENEFITS OF LAUGHTER.—Another resource for family amusement, is the various games that are played by children, and in which the joining of older members of the family is always a great advantage to both parties. All medical men unite in declaring, that nothing is more beneficial to health than hearty laughter; and sure our benevolent Creator would not have provided, and made it a source of health and enjoyment to use them, and then have made it a sin to do so. The prevailing temper of the mind, should be cheerful, yet serious; but there are times, when relaxation and laughter are proper for all. There is nothing better for this end, than that parents and older persons should join in the sports of childhood. Mature minds can always make such sports entertaining to children, and can exert a healthful moral influence over their minds; and, at the same time, can gain exercise and amusement for themselves. How lamentable, that so many fathers, who could be thus useful and happy with their children, throw away such opportunities, and wear out soul and body in the pursuit of gain or fame!

NEWSPAPERS.—A newspaper taken in a family seems to shed a gleam of intelligence around. It gives the children a taste for reading; it communicates all the important events in the busy world; it is a never failing source of amusement, and furnishes a fund of instruction which will never be exhausted. Every family, however poor, if they wish to hoid a place in the rank of intelligent beings, should take at least one newspaper. And the man who, possessed of property sufficient to make himself easy for life, surrounded by children eager for knowledge, is instigated by the vile spirit of cupidity, and neglects to subscribe to a newspaper, is deficient in the duties of a parent or a good citizen, and is deserving of the censure of his intelligent neighbors.

ARMY POSTAGE.—We mentioned the other day the probability of Congress passing a law to relieve our ill paid army of occupation from letter postage. We ought to have known Congress better. When did that august body ever take a step for the benefit of the "common herd?" When it was brought forward, Congress had no time to give to it. It is not fruit for General Buncombe. Our soldiers get 20 cents a day, and each letter costs ten. If they were given to arithmetic, the rank and file would see on the evening of the day at Palo Alto, that each one had exactly earned the price of a double letter home. Just enough to pay for telling their nearest friends where they threw in a wound or lost a limb for that same twenty cents. This is a great country, and it has a magnificent Congress.—*New York Sun.*

TO TIN COPPER BY BOILING.—Boil half a pound of granulated tin, and six ounces of super tartrate of potass in three pints of water; when they have boiled half an hour, put in any piece of copper ware, and continue boiling fifteen minutes longer. The copper may then be taken out, and will have been handsomely coated with tin.

A LIST OF PATENTS ISSUED FROM THE 1ST TO THE 30TH JAN., 1846.

To Elijah Converse, of Cincinatti, Ohio, for improvement in Corn Shellers: January 7.

To Jehiel I. Farrand, of Port Byron, New York, for improvement in raising Water from Wells: January 7.

To James Macgregor, Jr., of Welton, New York, for improvement in Stoves for heating apartments: January 7.

To Joseph C. Rich, of Penfield, New York, for improvement in Straw Cutters: January 7.

To James J. Mapes and William A. Cox, of New York city, for improvement in Evaporating Pans: January 7.

To Darius Goff, of Rehoboth, Massachusetts, for improvement in the mode of glazing Cotton Batting: January 15.

To Thomas A Davies of New York city, for improvement in Clocks: January 15.

To Harvey W. Sabin, of Gorham, New York, for improvement in Beehives: January 15.

To Horace H. Day, of New York city, for improvement in Portable India Rubber Boats: January 15.

To Joseph W. Harmon, of New York city, for improvement in preparing Caoutchouc, previous to grinding: January 15.

To Benjamin F. De Wolf, of Lansingburg, New York, for improvement in Cooking Stoves: Jan. 15.

To Thomas Hassard, of New York city, for improvement in Truss Bridges: January 15.

To Ebenezer J. Gazzam, of Pittsburgh, Penn., for improvement in Bedstead fastenings: Jan. 23.

To Moses Chase, of Baltimore, Maryland, for improvement in Washing Machines: January 23.

To Charles Branwhite, of New York city, for improvement in composition for making handles, moulds, &c.: January 23.

To William Fosket, of Ware, Mass., for improvement in Machinery for making Hat Bodies: Jan. 23.

To Joseph V. Hewes, of Putnam, Indiana, for improvement in the double seamer for working sheet metal: January 23.

To Lathrop S. Bacon, of Le Roy, New York, for improvement in Cooking Stoves: January 23

To Henry C. Billings, of Trenton, New Jersey, for improvement in Register Plates for Stoves: January 28.

To Hiram Seger, of Macon, Georgia, for improvement in Cutting Ladies' Dresses: January 28.

To Charles King, of Scipio, New York, for improvement in Washing Machines: January 28.

To Johan B. Isenring, Canton, of St. Gall, Switzerland, for improvement in Coloring Daguerreotype Plates, assigned ts F. Langenheim, of Philadelphia, Penn.: January 30.

To Frederick Langenheim, of Philadelphia, Penn., for improvement in coloring Daguerreotype Plates: January 30.

EUGENE SUE AND THE UNKNOWN.—It has been the custom, says the Parisian Journal des Debats, for the great novelist, notwithstanding his reputation as a man of fashion, to spend much of his time in visiting the garrets of the city, relieving the poor, and at the same moment gathering a deep knowledge of human nature. On a dark and sleety night last November, he was standing in one of the most wretched holes in Paris, where a poor widow and her two children were lying in a state of shocking destitution. They were without bread, or covering, or fire; and the beauty of one of the orphan children, a girl of some fifteen, added interest to the scene. Sue gave them some money, and left resolving to call next day. He did call, and to his utter astonishment, found the widow and her children surrounded with all the comforts of life—fire on the hearth, baskets of bread, Bologna sausages in profusion, and in fact every thing necessary to make home happy. In the midst of this scene of profusion stood a slender young man, very handsomely dressed. He was the cause of this sudden relief; the widow and her daughters blest him with tears in their eyes. Eugene Sue was much struck by this token of feeling in one so young, brilliant and gay. When the young fashionable left, he followed, determined to ascertain his residence, and after much trouble saw him enter a carriage near the Place Vendome, and drive to the Chasse d'Antin. Sue followed, saw the stranger enter the Hotel of the Duc de R——. He waited for an hour for his reappearance, and at last saw a beautiful young lady of high rank come out of the hotel and enter her carriage. In that lady Sue recognised, not only the handsome dandy, but the Princess d'Orleans, one of the daughters of Louis Philippe!

THE NEW FURNACE AT ST. CLAIR.—This furnace will produce 80 tons of iron a week, or 4,000 tons a year, which, manufactured into bar or railway iron, will give 3,200 tons, worth at $75 per ton, $240,000. Now all the coal used in manufacturing this iron, would at Pottsville be worth at $2 a ton, only $40,000, leaving a difference of $200,000 in favor of the establishment. But let us look at it in a more extended point of view; the coal produced this year will be about 1,400,000 tons, worth at $2 per ton, $2,800,000. Now eleven such establishments as the one spoken of above, would pay $2,200,000, a sum very nearly as great as the whole product of this region, while they would require to put them in operation not a larger sum than $1,000,000.

IMPROVIDENCE ILLUSTRATED.—A gentleman being undertaken by a shower sought shelter from the rain in the cabin of a negro fiddler. On entering he found the negro in the only dry spot, the chimney corner, as happy as a clam, fiddling away most merrily. Our traveller tried to keep dry, but the rain came in from all quarters. At length said he, "Jack, why don't you fix your house?" "O, cause 'er rain so, I can't." "But why don't you fix it when it's done raining?" "O, when 'er don't rain, 'er don't want any fixin."

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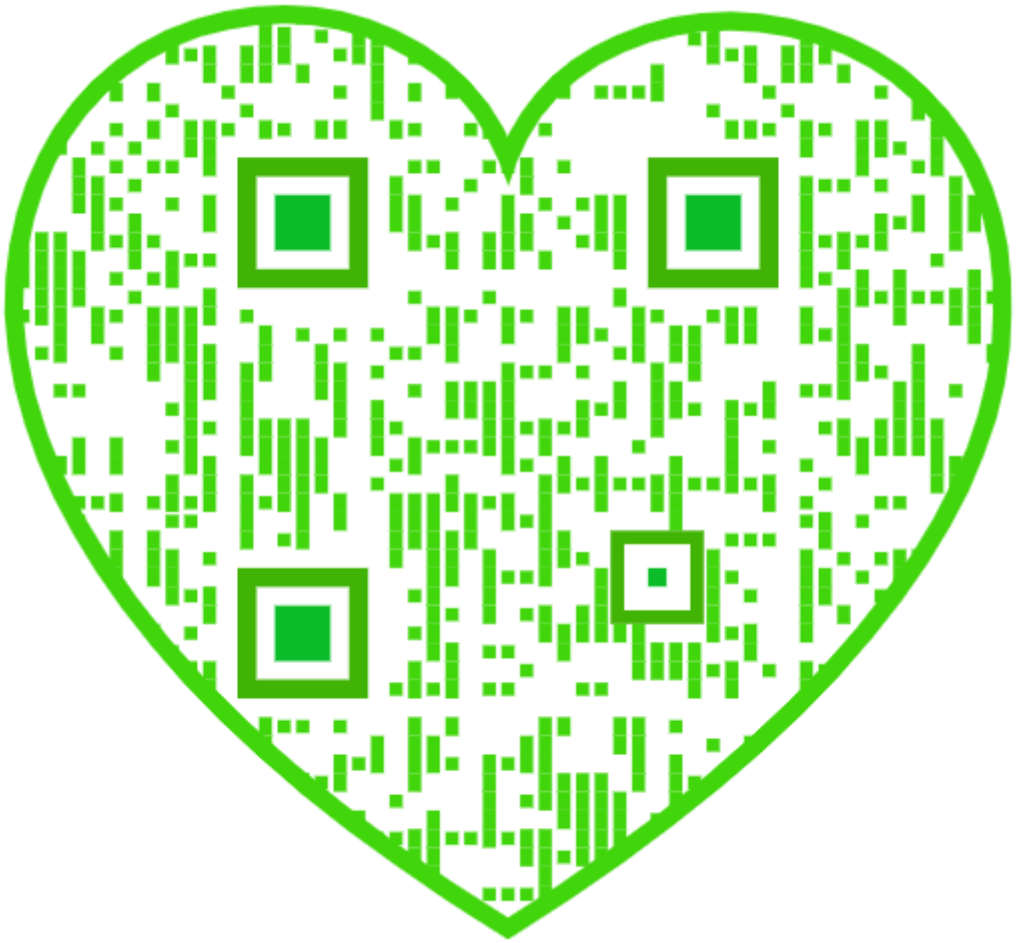
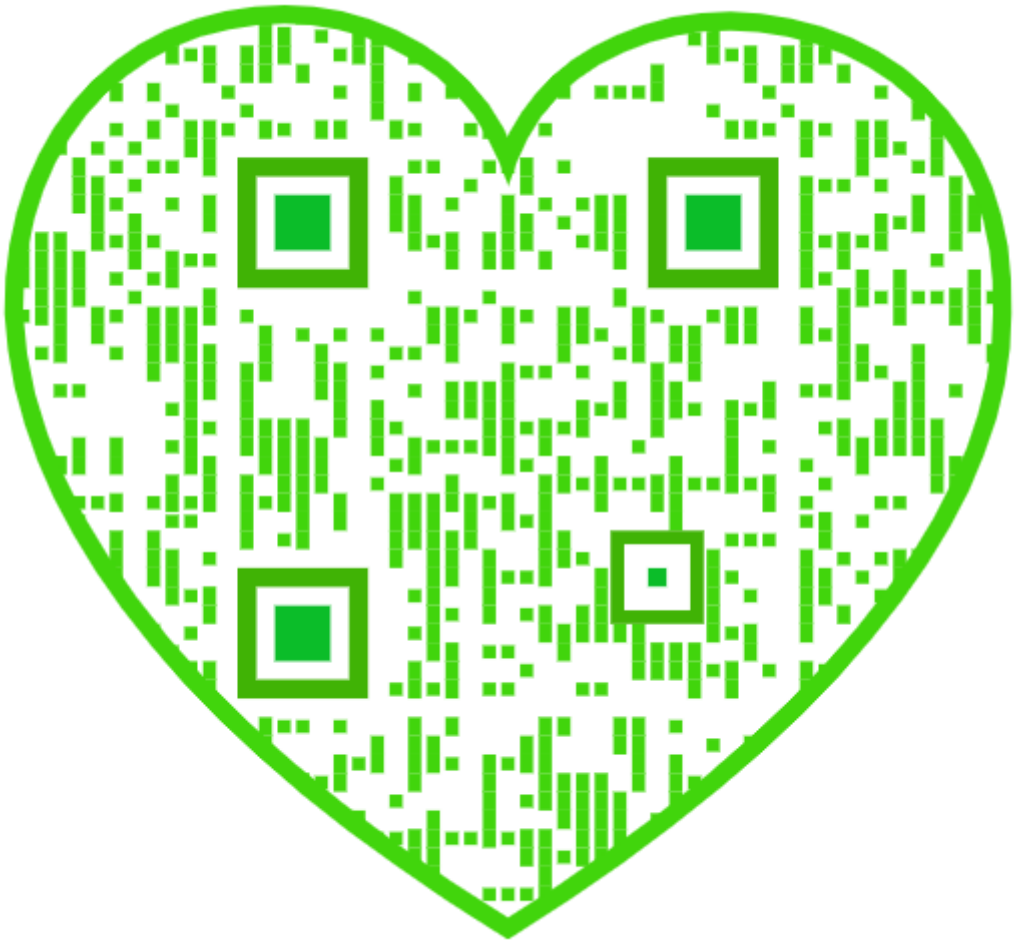




SCIENTIFIC AMERICAN

NEW-YORK, THURSDAY, AUGUST 6.

Drawings of machinery, engraving on wood, and lithographic drawings, neatly executed, at the lowest prices, at this office.

POST MASTERS—Who receive this paper, will confer a special favor by mentioning the subject occasionally to scientific mechanics. The aid, also and influence of all our kind patrons, in extending the notice and circulation of this paper, is most respectfully solicited.

Editorial Correspondence.

BILLARICA, Mass., July 31, 1846.

Dear Sci. Am.—You have probably felt sensible of my absence during the three days past, and are justly entitled to some explanation from me, on the subject of my unexpected absence. I shall conform to propriety in this respect, so far as to say that having chanced to stop on board one of the Eastern steamboats—the Worcester—the officers and crew of said boat, without saying a word to me on the subject, immediately cast off the ropes, hauled in the planks, and set the boiling hot steam to work on the machinery connected with the paddle-wheels; and as if to make sure of a prize, struck out directly into deep water, and the first opportunity I found to escape from this floating prison, was about 2 o'clock, A.M., somewhere on the shores of Connecticut. As soon as the Worcester pushed off from the pier, the Neptune seeing what was going on, started in pursuit, and had the former attempted to effect a landing at Blackwell's Island, as some—for there were a hundred or more in the same predicament—appeared by their anxious looks to anticipate, the Neptune would very likely have overtaken us; but the Worcester passed without stopping, and left the Neptune—whether with or without her officers, we did not learn—far in the misty distance. On reaching the Connecticut shore, we found that fortune had favored us with particular friends, who had anticipated our arrival, and had provided a train of long coaches with a huge iron horse, and no time was lost in conveying us beyond the reach of the guns of the Worcester—if guns she had had any—and taking a course up a deep ravine, occasionally taking a short cut through a long, dark, and deep hole in the earth, constructed on the principle of woodchuck's holes, but much larger,—we arrived at the frontier settlements of Worcester about the time that the sun was prepared to show us one to another, and enable us to reflect more clearly on the passing scenes around us. I shall not, at present, attempt to give you any description of this rural city—for a city it should be—with its busy streets, mills and shops; nor of the elegant mansions, rich farms, waving fields and shady groves with which it is surrounded. From this place to Boston, a distance of about forty miles, and requiring an hour and a quarter to ride over it, the traveller passes in quick succession, a series of flourishing villages of the most pleasant, healthy and independent kind. They are not like many towns in other parts of the country, in which a herd of people from various nations huddle together, without any other apparent occasion but to live on the breath of society; neither are they constituted by the proud mansions of retired aristocrats; but they are supported by cheerful and liberal industry, being constituted by the union of agricultural and manufacturing interests, concentrated by facilities of transportation, and cemented by education and temperance. The houses are comparatively new, in moderately elegant style, well painted and arranged in tasteful order. The surrounding well cultivated fields, and the hum of machinery in the mills, equally proclaim independence and plenty, while the spacious and airy hotels invite the traveller to rest. Neither topers nor beggars are seen; all are independent and cheerful; even the operatives of the factories and work-shops, when proceeding to their houses for their stated meals exhibit an air of independence, as much as to say, "we shall return at our own option:" and if, by way of contrast, there appears here and there one with an Ethiopian complexion, while he admits his place to be that of an inferior in society, he evinces a sense of liberty, and enjoys the confidence and good-will of those who would not practically acknowledge his claim to equality. Such is a village in Massachusetts, under the new and improved system of combination of interests. And although this community feel so little dependent on their influence in Congress, as to be peculiarly negligent with regard to the energy of their representatives, they appear to be confidingly conscious that the influence of facts and experience are such—and this also is the secret conviction of some of the loud opponents of the protective system—that every step and measure taken by Congress towards the delusive system of free trade (falsely so called) will inevitably produce a re-action which will be sensibly felt in the next succeeding election.

It was not my intention, dear Sci., to have loitered so much by the way, in my narration of progress but to have proceeded directly to notice some of the business improvements in Boston and immediate vicinity; but it being about time for the mail, I must defer that for another opportunity, remaining with due regard,

Your affectionate EDITOR.

AN IMPROVED NOSE.—A man in Cincinnati, who had an awkward turned-up nose, lately employed a surgeon to make an improvement thereof by cutting a wedge-shaped piece from the cartilage. This operation was readily performed, and the remaining parts were drawn and sewed together, after which the patient took a look at himself, and expressed much satisfaction, as did also his friends, at his improved countenance. It is not his intention to patent the improvement.

Foreign News.

The Royal Mail steamer Hibernia, arrived at Boston, on Monday morning, bringing intelligence of the ratification of the Oregon treaty, under the seal of the new foreign minister, Lord Palmerston.

The Autocrat of Russia has resolved to abolish slavery throughout his dominion.

The new Pope has granted a free pardon to all political offendors.

Queen Victoria and Prince Albert are preparing for a tour on the continent.

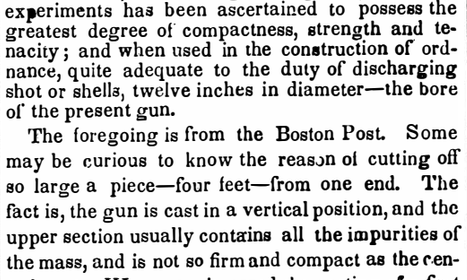
The foregoing three items are all we can glean from the foreign news, that appears worthy of notice, though we do not deem it of sufficient importance to justify a trip of the Hibernia across the Atlantic, without some other business in connection.

A LARGE PIECE OF HOT IRON TO HANDLE.—On Thursday week, we gave an account of the casting of an immense cannon at Alger's foundry, at South-Boston—the largest gun ever cast. Yesterday, the 13th day after casting, it was raised from the shaft, but was still so hot, that water, when cast upon it, was instantly converted into vapor. The mould was readily stripped from the stupendous mass, leaving a clean surface. Though weighing at least 20 tons, it was raised by two cranes, worked by twelve men, without difficulty. In fact, the facility with which it was moved by the aid of Mr. Alger's powerful machinery, afforded a spectacle nearly as interesting as the previous operation of casting. As it came from the mould, the gun is 14 feet 8 inches long. By cutting off about four feet of the length, boring out, and trimming, the weight will be reduced to about twelve tons and a half. The boring and turning will occupy three weeks. The metal used in this gun is composed of four kinds of iron, constituting a compound, which by experiments has been ascertained to possess the greatest degree of compactness, strength and tenacity; and when used in the construction of ordnance, quite adequate to the duty of discharging shot or shells, twelve inches in diameter—the bore of the present gun.

The foregoing is from the Boston Post. Some may be curious to know the reason of cutting off so large a piece—four feet—from one end. The fact is, the gun is cast in a vertical position, and the upper section usually contains all the impurities of the mass, and is not so firm and compact as the central part. We once witnessed the casting of a first class Paixhan at Alger's foundry, and much admired the appearance of the river of bright glowing melted iron which flowed in a continuous current from the furnace to the mould, a distance of some twenty feet. The heat of this fiery stream was such as to keep all spectators at a respectful distance during the process. It is not yet known how large a casting might be produced in a solid mass, but there is no doubt that as large a job in this line could be undertaken and accomplished at Alger's, as at any other establishment on the globe.

Science of Mechanics.

(Continued from No. 45.)



We have therefore spoken of the fly-wheel, as a retainer of power by its momentum: we shall now describe some other and more effectual retainers, to be used where the motion of machinery is required to be continued a long time after the first moving power is withdrawn or suspended. Some clocks and watches are so constructed that the application of the impelling force is not suspended, even while the spring or weight is being wound up by the application of the key. These are retainers in the fullest sense; the first moving power being that of the hand, applied by means of the key, and this power is retained by means of a weight or spring, so as to continue the motion thirty hours or more, after the first moving power is withdrawn. Retainers on a similar principle have sometimes been applied to mills and other heavy machinery. The accumulated heat in the boiler of a steam engine will in some instances, continue the operation of the connected machinery, for three hours or more after the fire is extinguished. Wind-mills have been so constructed that when the power exceeds that required at the time, the surplus power is applied to raising a ponderous weight, which by its decent is made to contribute the power required to to continue the operation of the mill or machinery, with its ordinary velocity, for an hour or more after the wind becomes insufficient for that purpose.—But the most efficient plan for retaining power on a large scale, is that of applying the surplus power, or rather the whole power of a wind wheel to the purpose of raising water to replenish a pond, either natural or artificial, for the purpose of supplying power to a water-mill. The apparatus for this purpose may be of a very simple construction, and very cheap in proportion to the power produced; and if the pond or reservoir, is sufficiently large, a quantity of power may be accumulated and retained, sufficient for driving a mill for a month or more, independent of the wind. If a mill is required to be situated on the top of a mountain, or hill, and, where no sufficient reservoir for water can be obtained, a considerable power may be retained, by means of a large stone cylinder, which by the surplus power of a wind-weel, may be made to roll up an inclined plane, on the side of the hill; thus holding in readiness a quantity of power, which by the descent of the rolling cylinder, may be applied to aid in driving the mill when the wind is insufficient. This kind of retainer, however, requires some machinery of peculiar construction, and similar to that described in No. 18 of this paper, and to which the reader is respectfully referred.—If there is a sufficient elevation, and a roller of sufficient size is employed, the motion of an ordinary mill may be continued twenty-four hours after the wind has ceased to operate on the sails of the wind wheel.

(To be continued.)

New Inventions.

CARRIAGE BRAKE.—A patent has been recently granted for an invention of that peculiar class which, when they appear, excite wonder that they had not been thought of before. It consists of a simple arrangement by which the rear end of the pole of a wagon or stage coach, by being permitted to slide back two or three inches through a groove, by this motion, operates on a pair of short levers which force a pair of brake-blocks against the rear side of the forward wheels; thus impeding the wheels by the action of the horses in holding back the pole. This excellent arrangement was invented by Mr. John Dubois Jr. of Cascade, Pa. No country stage coach should be permitted to run over hard hills without this safe and simple appendage.

APPARATUS FOR RETARDING SLEIGHS OR SLEDS.—This also is an invention by Mr. Dubois, and is a very simple and judicious contrivance. In this case the pole of the sleigh is made to slide through a groove attached to the roller, and the rear end of the pole connects with an extension rod which extends back to a cross-bar, the two ends of which are connected to the heads of two knee-levers which are attached to the runners. Each knee-lever is attached to the inside of the runner by a pivot at the knee; and while the vertical branch is connected to the cross-bar, the horiontal branch extends a few inches backward and terminates in a hook or scratcher, formed on the plan of a common hoe.—This scratcher is ordinarly elevated several inches from the ground; but when the pole is pressed back by the horses, the cross-bar being forced back, depresses the scretchers, pressing them hard on the ground. If the scratchers catch hold of any thing solid, they will be instantly relieved by the forward motion of the pole and cross bar.

NEW STEAM ENGINE.—A patent has recently been issued for a steam engine of novel construction, invented by Hezekiah Olney, of Governeur, N. Y. The engine comprises a cylinder, piston, and piston rod: the latter is hollow, and contains two semicircular orifices through its entire length; one of these serves as a channel for the induction, and the other for the eduction of steam. The piston is hollow, and serves as a valve chamber, and contains two sets of sliding valves, the ends of which project a little beyond the piston, so as to come in contact with each cylinder-head alternately by the motion of the piston; and by this contact their positions are changed so as to open and close the induction and exhaust valves at the precise point at which those changes are required. There can be no doubt that this plan may succeed well in some instances, though it will not be likely to supersede the other kinds already in general use.

PORTABLE BEDSTEAD.—We are gratified to learn that by the ingenuity of a Cincinnati mechanic, there is a prospect of ameliorating the privations and hardships of our brethren who are engaged in the active general service of the United States. We allude to the invention of a bed and bedstead, so constructed and arranged that it may be closed up and packed in a valise, and may be extended and put in sleeping order in two minutes. We have not been favored with a description of the construction of the invention, but may probably ere long procure such, and lay it before our readers, with illustrations. The inventor's name is Uriah Updegraph.

NEW BUSINESS FACILITY.—We are happy to announce for the benefit of mechanics, inventors and others, that Mr. Fleet, formerly of the "Farmer and Mechanic," has established an office of agency and intelligence, particularly for mechanics and manufacturers, at No. 34 Ann street, and has in connection therewith opened spacious rooms for the exhibition of such articles of novelty and utility as manufacturers and inventors may furnish for that purpose. Those wishing for partners, assistants, agents, purchasers or places, or those farmers, merchants and manufacturers, who have stock, machines, or plans to dispose of, may here be accommodated or furnished with intelligence on the subject which will greatly facilitate business operations, and save much loss of time. We regard the establishment as very appropriate to these days of steam and railroad enterprise, and can assure our readers that the business of said establishment will be conducted on correct principles.

MISCHIEF IN CONNECTICUT.—The State of Connecticut has proverbially been termed the "land of steady habits;" but it is well understood that while in no other State in the Union so strict injunctions of Sabbath-keeping and church-going have been observed, neither has there been in any other State so much of position to certain kinds of mischief. We have been led into this vein of philosophizing, by the statement in some of our exchanges, that in the short space of one week, the telegraph wires between New Haven and Bridgeport, have been broken in fifteen places, the glass knobs shattered, and portions of the wire carried off. We hope for the honor of the community, that the citizens in general will be on the alert to detect and bring to justice such wretches as would wantonly destroy property, and retard the progress of enterprise and improvement.

MNEMONICS.—It is stated in the Philadelphia Times, that two very pretty young ladies, named the Misses Pike, are teaching the art of memory in Pennsylvania. It is thought they must have been very successful in teaching, from the circumstance that the editor of the Times retains such lively recollections of them. The editor is quite right, however. We happen to have had the pleasure of an acquaintance with the Misses Pike, and believe that for aptness in teaching, or communicating the improved science of Mnemonics, and at the same time commanding the respect as well as the approbation of a public audience, there may not be found their equals in the United States. They are natives of Washington County, N.Y., and sisters of the author of the new system of mnemonics.

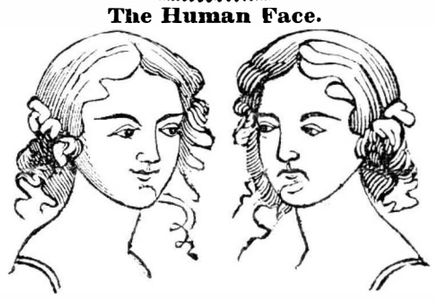
Editorial Correspondence, No 2.

BOSTON, Aug. 1st, 1842.

Dear Sci.,—In my last I alluded to the flourishing state of some of the manufacturing villages, and I could not have supposed that the news of the passage of the pernicious tariff bill would have produced so serious and sudden an effect on the business prospects of those places; an effect, however, much more sensibly felt by the operatives than by the proprietors; for it is too well understood that a reduction of the tariff is to be followed by a corresponding reduction of the wages paid to the operatives. Next to the working manufacturer, the farmers and builders will feel the effects of the new tariff law; and the influence and extent of these united interests in this country, are such that the result of the next general election may be considered as decided and settled by the final vote on the tariff bill. However, the business, enterprise and prosperity of New England, will not be permanently injured by this freak of politicians; but with improved experience and economy, will continue to go ahead, while the lands of their political enemies will be mortgaged for the means of cultivation. In Boston I find the progress of improvement continues at a steady pace. The new depot of the Boston and Portland Railroad, on Haymarket Square, is constructed in a style superior to any other in the city, and its peculiar situation as well as its location—being in the very heart of the city—is well calculated for the convenience of all passengers and others having business thereat. The main building is open on three sides, on three popular streets, and there appears nothing to prevent the extension of a row of depot buildings to the distance of two thousand feet, with the railroad track in the centre. This is unquestionably the best location that could be found in Boston for a grand central depot, and I cannot but anticipate that the proprietors of the several railroads radiating from this city, will soon see the propriety, not to say the necessity, of connecting them to each other by extending track rails through the city. The public convenience demands it, and with the progress of other improvements, the city, as well as the railroads, will appear decidedly awkward without this connection. I shall have but little opportunity for observation here at present, but may notice a few subjects in the line of new railroads and new inventions, under their appropriate heads. I close this by subscribing, with peculiar regard, Your most devoted EDITOR.

CHANCERY.—There is said to be not less than $2,921,900 now locked up in chancery in New York; of this sum the Banks and Trust Companies have $1,810,800, and $30,000 belongs to an individual who is almost starving for want of it.

The Human Face.



TERMINATIONS OF THE MOUTH.—(This article was original in the New York Mechanic, and is republished by particular request.)—Every thing in this world has at least one termination: some have two: the human mouth has three—two at present and a third in prospect. But the present and ordinary termination—vulgarly termed the *corners*—of the human mouth, and the effects, impression, and consequences thereof, are what we were thinking of particularly, when we commenced this article. The introduction of this subject at the time was occasioned by seeing a "pair of sisters"—twins—beautiful and fifteen—precisely alike in countenance, disposition, and features, with the exception of different terminations of the mouth, an illustration of which is given in the sketch above. This slight circumstance is evidently affecting the fortunes of these excellent young ladies—for excellent they are—in a manner and a degree more serious than could be supposed by any but close observers of human nature. While one is complimented and flattered on the sweetness of her temper, and uniform cheerfulness of disposition, the other has the general reputation of being morose and gloomy, and her company is regarded with indifference. The effects of these *consequences* are likely to be still more important: for while the mind of the former is becoming vain and arrogant, that of the latter is improving by rational reflection, and is verging to sensibility, meekness, and gentleness surpassing what nature seems to have designed. What the future destiny of these sisters may be, is not yet revealed; but we think the most sensible people would prefer without hesitation, the prospects of her with the depressed terminations of the mouth.

AN INCIDENT.—A lady who had been a minute too long engaged in exchanging compliments with parting friends, on board the steamer Portland, attempted to jump on shore after the boat had left the pier, and was precipitated. Four gallant Yankees instantly jumped into the water, and the lady was rescued, thinking herself well repaid for her ducking, by the marked attention she received.

SAGE ADVICE.—Never pay a bill on first presentation—it would look as if you were ostentatious of honesty. At the second time of presenting you may consider about it, and say "call again." Third or fourth time you may be either not at home or out of money, and should the creditor call a fifth, you may have fair reason to be offended at his perinacity, and not pay the bill at all.

ARCHITECTURE.—We have made arrangements for a series of articles on this subject in future numbers.

It is in general much easier for a man to conform his mind to his circumstances than to conform his circumstances to his mind.

VARIETY

A manufacturer of Roman cement, recently deceased, left directions to have his grave partly filled with this composition, and after his coffin was imbedded, to be filled up with the same material, thus ensuring safe keeping.

The new cotton factory at Salem, Mass., contains 12,000 panes of glass, 2,200,000 bricks, and four halls capable of holding 12,000 persons each. It is operated by steam power.

Santa Anna sold off his game cocks on account of a prospect of going to Mexico, to take the reins of Government: but recent unfavorable news has deterred him from proceeding.

Capt. Mulholland, who last winter abstained from all food or nourishment *forty-nine days*, died on the 7th ult., at Rapides, La. His constitution became so prostrated that he never recovered.

Dr. Swaim who had amassed an immense fortune, by the sale of a quack medicine, and whose daughter wore $20,000 worth of diamonds, on a visit to Saratoga, died recently at Philadelphia.

Any person who practices writing an hour with carmine-colored ink, in a strong light, will find ordinary black letter print to appear green for some time afterward.

Some Boston genius has introduced the fashion of dying lap-dogs blue, pink, and other fancy colors. A few dogs are found *died* occasionally in New York, but by a different process.

Several cargoes of hay arrived in this city last week, from the far regions of Iowa, furnishing an extraordinary instance of the advantage of facilities of transportation.

Since the general introduction of temperance regulations in the country, many of the punch and julap loving gentry make weekly excursions to Boston, and furnish the police with some dozen cases por day.

Independence Hall, Philadelphia, has been restored in good style, and after the pattern of the original, which was destroyed a few years since by the nefarious opponents of freedom.

The ludicrous inconsistencies of the Harrisburg (Pa.) Presbytery, in forbidding the recreation of dancing, while they countenance the most flagrant practice of crime, is severly noticed by the press.

A pedestrian named Eaton, and seventy-one years of age, has performed the feat of tramping his feet 1000 miles in 1000 consecutive hours, at Caledonia Springs, in Canada. He is *old and tough*.

It is stated that no less than two hundred and twenty of the Lowell factory girls have been married within the last year. What is the use of going to Iowa for husbands?

A committee of nine in the Legislature of Alabama, have expressed apprehension that Kentucky, Maryland, Virginia, Tennessee and Arkansas, will soon abolish slavery.

It is reported that a son of Sir Robert Peel, who has filled several important offices, recently lost at a gaming-table in London, 1,500,000 francs, which being unable to pay, he has been thrown into prison.

The owner of an ice-house which was recently destroyed by fire, is said to be in danger of losing his insurance, in consequence of having put more ice into the house than was proposed.

The Savannah (Ga.) papers complain of uncomfortably cold weather, the thermometer ranging as low as 65. They might warm their noses by taking an occasional trip to New York.

Strawberry patches on the Licking river, opposite Cincinnati, cover 108 acres. They supply the city of Cincinnati with 228,000 quarts of berries per season.

A gentleman just arrived from the seat of war, states that Capt. May's beard reaches as low as the hip; and that the hair of his head is proportionably long. No wonder Gen. Vega "knocked under."

By the census of the inhabitants of Portland, just completed, it appears that the whole number is, in round numbers, seventeen thousand, being an increase of 700 within the past year.

It is reported of a certain ostentatious lawyer that he is never without at least a dozen cases on hand. It has been ascertained, however, that they consist of a lot of *old book-cases*.

There is said to be an extensive immigration going on from the New England States to the rich lands and more salubrious clime of western Virginia. We only wonder it has not occurred earlier.

An appropriation of $75,000 for the improvement of the Hudson River, has been voted by both Houses of Congress. There is some apprehension of a veto, but we think it groundless.

The number of buildings destroyed by the late fire at Nantucket, is estimated at nearly four hundred. Liberal contributions are being made in various places for the relief of the sufferers.

The plan has been projected of constructing a line of telegraphs to Europe *via* Bhering's Straits, across which it may be supported by moored buoys, without impeding the navigation.

Large, ripe, and excellent water-melons, are abundant in the markets, and are being sold at the stands for *one cent a piece!*—not very large *pieces*, however.

The work of setting up the posts for the magnetic telegraph between Boston and Portland, is going on rapidly. It is expected to be finished within the present month.

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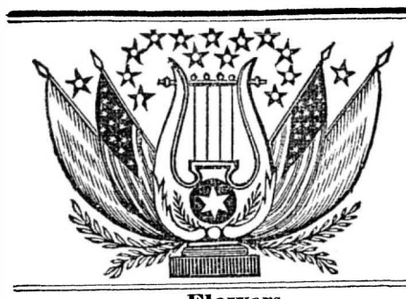


Flowers.

Oh! they look upward in every place,
Through this beautiful world of ours,
And dear as a smile on an old friend's face,
Is the smile of the bright, bright flowers!
They tell us of wanderings by woods and streams,
They tell us of lanes and trees;
But the children of showers and sunny beams
Have lovelier tales than these—
The bright, bright flowers!

They tell us of a season when men were not,
When earth was by angels trod,
And leaves and flowers in every spot,
Burst forth at the call of God;
When spirits, singing their hymns at even,
Wandered by wood and glade,
And the Lord look'd down from the highest heav'n,
And bless'd what he had made—
The bright, bright flowers!

That blessing remaineth upon them still,
Though often the storm-cloud lowers,
And frequent tempests may soil and chill
The gayest of earth's fair flowers.
When Sin and Death, with their sister Grief,
Made a home in the hearts of men,
The blessings of God on each tender leaf,
Preserved in their beauty then—
The bright, bright flowers!

The lily is lovely, as when it slept
On the waters of Eden's lake;
And sweet is the woodbine, as when it crept
In Eden from brake to brake.
They were left as a proof of the loveliness
Of Adam and Eve's first home;
They as a type of the joys, that bless
The just, in a world to come—
The bright, bright flowers!

A Victory.

The joy-bells peal a merry tune
Along the evening air;
The crackling bonfires turn the sky
All crimson with their glare;
Bold music fills the startled streets
With mirth-inspiring sound;
The gaping cannon's reddening breath
Wakes thunder shouts around;
And thousand joyful voices cry,
"Huzza! huzza! a Victory!"

A little girl stood at the door,
And with her kitten played;
Less wild and frolicsome than she,
That rosy prattling maid,
Sudden her cheek turns ghostly white;
Her eye with fear is filled,
And rushing in-of-doors, she screams—
"My brother Willie's killed!"
And thousand joyful voices cry,
"Huzza! huzza! a Victory!"

A mother sat in thoughtful ease,
A-knitting by the fire,
Plying the needle's thrifty task
With hands that never tire:
She tore her few gray hairs, and shrieked,
My joy on earth is done!
Oh! who will lay me in my grave;
Oh, God! my son! my son!
And thousand joyful voices cry,
Huzza! Huzza! a Victory!"

A youthful wife the threshold crossed,
With matron's treasure blessed:
A smiling infant nestling lay
In slumber at her breast.
She spoke no word, she heaved no sigh,
The widow's tale to tell;
But like a corpse, all white and stiff,
Upon the floor she fell.
And thousand joyful voices cry,
"Huzza! huzza! a Victory!

An old weak man, with head of snow,
And years threescore and ten,
Looked in upon his cabin home;
And anguish seized him then.
He help'd not wife, nor helpless babe,
Matron, nor little maid;
One scalding tear, one choking sob—
He knelt him down and pray'd.
And thousand joyful voices cry,
Huzza! huzza! a Victory!

VELOCITY OF LIGHTNING.—We have already stated that sound travels in air with a velocity of only 113 feet in a second, but lightning at the rate of 195,000 miles in the same period of time. The time in which the flash of lightning reaches us from the different points of its course, may consequently be considered instantaneous; but the time which the explosion occupies will be very appreciable, and will vary with the distance of the several parts of the long line, which the distance travels. A calculation has been made, founded on the interval between the flash and the sound, and the duration of the thunder-clap, showing that a flash of lightning will frequently traverse a space of nine or ten miles; and, when we take into account the zig-zag course which it ordinarily follows, its alternate approach and recession, will account for the phenomena in question.

Such would be the effect produced upon an observer standing at the end of a long file of soldiers, who were to discharge their muskets at the same moment. He would not hear a single report, but a succession of reports, which would produce an irregular rolling sound.—*Exc.*

"The hay crop in this section has been almost entirely cut off," says the Norway (Me.) Advertiser. If it has been cut off near the ground, there will be a chance for another crop.

An honest man is one who acts in accordance with his profession of principles.

For the Scientific American.

MR. EDITOR,—.

In your paper of July 16th is an article in which you hazard a conjecture on the "Northern Lights," which is quite new to me. I will give you my opinion in exchange for yours, which is, that the Aurora Borealis is caused by the sun's shining on the mountains of ice in the Northern Seas, which are constantly in motion.

This has always seemed the most rational conclusion that I could arrive at, and I submit to you and your readers, and should like to have the opinion of others who may differ from either of the two opinions under consideration.

"NORTHERN LIGHT."

Boston, July 18, 1846.

Mr. Northern Light must throw more *light* on this subject before we can understand how the ice of the Northern Ocean, on which the sun never shines in winter, can at that season reflect its rays into the atmosphere of our hemisphere.

GLOOMY NEWS.—Our sight has become so feeble of late, that it is difficult for us to find the amount of half a column of cheerful and interesting intelligence, in perusing a hundred of our exchange papers. There appears an abundance of reports of murders, and other crimes of the most bloody, unnatural, and heaven daring character; and many dreadful casualties, together with much political discussion, and more dull common-place prose; but lively, cheerful, and useful matter is among the scarcities. We subjoin a catalogue of a part of the subjects found in a single paper of last week—a paper which we esteem as one of the most interesting of our exchanges:—"The slave system; a desperate woman; accident; horse thieves; an infernal machine; death of a soldier; the potato rot; sudden death; a man thrown from a carriage; execution of Potter; a soldier's burial; a whole family poisoned; pockets picked; body found; stage accident; death of a sorrow stricken wife; Nantucket fire; drowned; military outrage; Indian disturbances; another horrible murder; a fiendish act; burial of four children; sudden death of three sisters; execution of Howard; ship Gentoo lost; sentence of a young girl; death of a boy by accident; another girl arrested; murder of a wife; a female fight; ship destroyed by lightning."

There, now, is a specimen; and if our readers suppose we can produce a brilliant and cheerful paper, from such a flood of gloomy materials as are presented by the best of our exchanges, they must attribute to us some peculiar ability beyond the influence of example, or circumstances.

THE RANK AND FILE OF THE ARMY.—All the officers with whom we have conversed, who were engaged at Palo Alto and Resaca de la Palma speak in terms of the greatest enthusiasm of the conduct of the rank and file on those trying occasions. Not only did the men behave well in the fight, but they manifested the utmost anxiety to get into it. Lieutenant Crittenden related several incidents to us which place the conduct of the privates and non-commissioned officers in the most favorable aspect. After Col. McIntosh had been wounded on the 8th, one of the men was detailed to take charge of him. He complained bitterly. He loved his Colonel, he said, and would be proud to nurse and take care of him; but he did not like to lose his chance in another fight, and begged to be excused. One of the corporals was wounded by a ball in the forehead, which at first looked as if it would prove fatal. He pressed his hand to his head and said:—"I am hurt; I am mortally hurt." Then reflecting, he said—"No I ain't: I am good for something yet!" He then bound up his head with his handkerchief, went into the fight, and did his duty like a man. By this time, however, his head had swollen greatly, and he was forced by his officers to place himself in the hands of the surgeon. This noble fellow is now in the detachment commanded by Capt. Marcy and Lieutenant Crittenden, which leaves with them to-day. After the battle of the 9th, when more hot work was expected, Lieutenant Crittenden, with his men—or what remained of them, for he had suffered severely in these engagements—were bivouacked on a spot near the river. Early in the evening he was called upon by Lieutenant Hays, of this State, who had received an order from General Taylor to cross the river in the morning. Ten of the best men were required for a duty then believed to be full of peril, and Lieut. H. wanted to know if he could obtain this sort of metal in the ranks of Crittenden's company. The latter thought that he could accommodate him. Most of his men were lying on the ground asleep, or overcome with fatigue. He woke them up. "Men," said he, "Mr. Hays wants ten daring cool fellows to cross the river with him in the morning. All who are willing to go will rise—though all must be aware it is an enterprise full of danger." *Every man jumped to his feet in a moment.* A selection had to be made, however. Those who were not taken were loud in their complaints, and one of the sergeants came to Crittenden several times during the evening, and begged to be excused. His Lieutenant told him that privates, not officers, were required. "O, never mind," said the sergeant, "you'll find that I can play private very well." Is it wonderful that against such a spirit the best troops, and the overwhelming numbers of the foe, were unavailing?—*Extract.*

EZRA GREGGORY.—A personage by this name has become popular, by an extraordinary course of knavery and of singular fortune. He has made it a business for several years, of marrying young ladies of moderate fortune, receiving their money and decamping in pursuit of other victims. By his third or fourth wife in Georgia, he procured several thousand dollars, with which he proceeded to Chicago, and married a young lady who has become heiress to a large fortune in Scotland. This circumstance will probably secure him from justice, though it will not save his new wife from desertion, as soon as he fairly gets possession of her fortune.

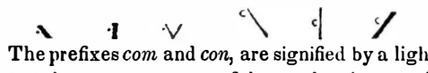
A sensible man will read for the sake of intelligence rather than amusement.

Phonography.

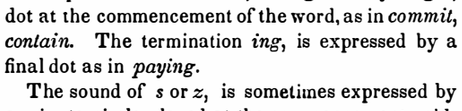
(Continued from No. 44.)

COMBINATION OF SIGNS.—The consonant signs for each word, should be joined, and written without taking off the pen, the second consonant sign commencing where the first one ends, and the third at the end of the second, &c. The learner should write upon lines, as a general rule, though it will generally occur that the termination of a word will fall some distance below its commencement. The vertical signs should be commenced at the top, and the horizontal signs on the left; and the pen or pencil must be held in such a position as to be moved in any direction with equal facility. Observing these rules, the learner may proceed to the formation of words in any variety, using the consonant signs only, according to the following examples:

beam rome pin long ship mate

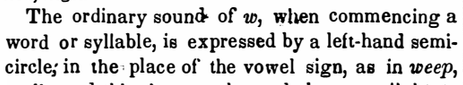


family manner beautiful gentleman



After writing several words, lines or sentences in this, the learner may add the vowel points; at least such of them as appear to be essential to the legibility of the writing. By this process, the words in the foregoing example will appear thus:

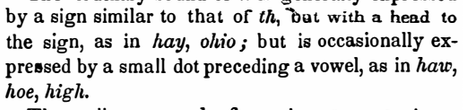
beam rome pin long ship mate



family manner beautiful gentleman

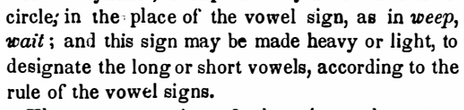
When two vowels come between two consonants, one vowel must be applied to each consonant, as in *poem.* When a word begins with two vowels, both vowel signs are placed before the consonant, but at unequal distances, as in *iota.* A similar rule is observed when a word terminates with two vowels, as in *idea.*

poem iota idea commit contain paying



speak apes chest mast hay ohio

haw hoe high weep wait wage



The prefixes *com* and *con*, are signified by a light, dot at the commencement of the word, as in *commit, contain.* The termination *ing*, is expressed by a final dot as in *paying.*

The sound of *s* or *z*, is sometimes expressed by a minute circle placed at the commencement, middle, or termination of a word, as in *speak, apes, mast.*

The ordinary sound of *h* is generally expressed by a sign similar to that of *th*, but with a head to the sign, as in *hay, ohio;* but is occasionally expressed by a small dot preceding a vowel, as in *haw, hoe, high.*

The ordinary sound of *w*, when commencing a word or syllable, is expressed by a left-hand semicircle, in the place of the vowel sign, as in *weep, wait*; and this sign may be made heavy or light, to designate the long or short vowels, according to the rule of the vowel signs.

There are a variety of other signs, characters, points and appendages, used in phonography to express the various combinations of consonant and vowel sounds, which though apparently tedious to the learner, are found very convenient in practical use, and in facilitation will repay for the trouble of learning and practising them.

(To be continued)

A NEW PLAN OF SOCIETY.—The first number of a new periodical entitled "The Problem Solved," contains as a leader, an article under this head, in the course of which the writer remarks—"We want a state of society in which no man shall lean on any but himself;" but subsequently admits enough of human selfishness, changeableness, and diversity, to prostrate all hopes of the practicability of this plan. It is seriously amusing to observe the many short sighted and futile attempts which have been made within a few years past, to build and establish harmonious societies, with no better cement than mere human virtue and wisdom. It can not be done. Nothing short of the rationalizing and uniting principles of the Spirit of Christ can ever possibly produce harmonious human society: lively confidence in God, and strong attachment of love, one to another, with meekness and humility, constituting the only principles on which human society can be successfully and permanently established.

CITY OF MEXICO.—In several respects, Mexico is said to surpass any other city in the world. The public square contains about fifteen acres, paved with stone. The cathedral covers one entire side, and the palace another. The western side is occupied by a row of very high and substantial houses. In the principal streets the houses are all constructed according to strictest rules of architecture. Many of the most elegant buildings are owned by the descendants of Fernando Cortez, who laid the foundation of the present city. Rents of houses are said to be higher than in any city in the United States.

THE USE OF THE TELEGRAPH.—A merchant of Philadelphia was taken in Baltimore the other day on a sheriff's warrant, and in duress, without a friend in this city by whose interposition he could escape a visit to the jail. A thought struck him in his depression, and in custody of the sheriff he visited the telegraph office. A message was despatched to Philadelphia, a draft drawn and accepted, and in half an hour the party was released, blessing the arts and sciences in general, and Morse's Telegraph in particular.—*Balt. Sun.*

Geological Gleanings in Mississippi.

(Continued from No. 45.)

Here, as at the White Cliffs, we are told were formerly to be seen large blocks of petrified wood. Their vicinity to the city and convenience of access occasioned their removal many years since by those for whom they possessed an interest, and small fragments only are now found intermixed with the pebbles.

The most interesting mineral found here is the Hydrate of Iron, or Limonite. This is very rarely seen elsewhere in the State, and never in such quantity, perfection, and variety of size and form. The spherical and ovoid form occurs so frequently that these specimens are here familiarly called ochre balls.

The specimens met with here, of whatever size or form, are invariably hollow, the cavity generally filled with a red yellow or ash colored ochre, which imparts a deep corresponding tinge to the interior of the shell, as seen when broken.

The exterior is of a black or brownish yellow, according to the degree of attrition or polish received from the action of the gravel in which it occurs, and the fractured surface possesses a glazed or glossy black appearance. The contents of these balls, *or shells*, is in a semifluid state; when kept dry for a time, the moisture is absorbed or escapes, the ochre looses its volume, becomes hard, and rattles against the sides when shaken. It is then readily reduced to a soft impalpable powder, combining freely with oil or water, and forms a useful pigment, for the purposes of the painter.

Professor Hitchcock, in his geological report of the survey of Massachusetts, describes the Limonite, as generally filled with sand, or enveloping a nucleus of lignite. None such have been found here, but from the cavity or interior of one a handsome prism of senelite or chrystalized gypsum was obtained about two inches in length. At the Natchez bluffs, the limonite in all its sizes and varieties of form, both entire and in broken fragments enters, in connection with the gravel and oxide of iron with which a large section of the beech is incrusted or paved.

A pottery has recently been established at the upper end of these bluffs, near the cotton factory, and within a few yards of an ample supply of a most excellent material for its purposes. The proprietor has long been engaged in this business at Cincinatti, and subsequently in New Orleans, and possesses a thorough practical knowledge of these clays, states that he has never seen them elsewhere in such abundance, variety and excellence, as at the Natchez bluffs and the White Cliffs.

At the Grand Gulf a rocky promontory presents its base to the river, changing its direction suddenly, and producing the strong eddy which gave name to the place and rendered it so formidable in olden times, before the introduction of steam navigation, to the river craft. This cliff is composed of a sand stone, variable in texture, passing from a coarse loose friable material to a hard compact stone, occasionally of a vitreous appearance, seeming in some specimens to be an aggregation of very coarse sand cemented in a pearly or enamel like matrix. The better qualities have been used to some extent in the Town of Grand Gulf for architectural purposes, the more inferior in paving and M'Adamizing the streets.

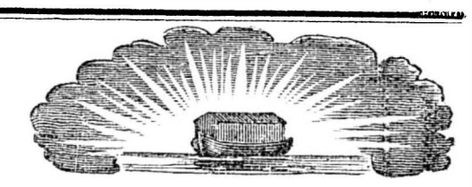
This formation may be regarded as more extensive than is generally supposed: presenting itself in the escarpment of the bluff, it is lost beneath it as it recedes from the river, but it is thought may be traced along the dividing ridge between the Big Black and Bayou Pierre, crossing out occasionally and laid bare in the channels of some of the streams, belonging to the same formation and connecting by a continuous chain, perhaps, with the Quarries, between Raymond and Jackson. Between these terminating points it is believed that valuable and extensive beds occur, easily quarried, and freer from the feruginous veins and imperfections which are seen in that used in the State House.

The Walnut Hills, the last of the bluffs on the river, ascending, within the State, rest upon a marine formation. The ledge of rock exposed near the base, may be traced along the river, above high water mark, for more than a mile. It is found to contain sharks' teeth and various fossil shells, finely preserved. Branches of coral, and quantities of sea shells of various kinds occur also in the marl, and tenacious clays associated with this rock, and in the valley of a small creek running through the northern part of the city of Vicksburg. The stratum is not sufficiently exposed throughout this extent to afford a very satisfactory knowledge of its position. In some parts of the section it appears to be disposed horizontally, the most indurated portions of the rock about ten feet thick, but divided into several strata.

This formation is doubtless identified with that which characterizes the Prarie region, and probably connects with it, passing eastwardly along the Yazoo, and revealing itself at the ball ground prairie, distance about twelve miles, and at Haines' bluff and other points in its course.

The Prairie region commences near Leaf River and the Chickasaupay. The open prairies are there small and disconnected, considerable bodies of timbered land intervening. Proceeding northwardly they become more extensive, and over a space of more than a hundred miles preserve nearly a continuous chain, separated only by narrow belts of timber chiefly of Post Oak and Hickory.

The surface of the large prairies near Columbus and Cottongin port, is quite level or gently undulating. Some of those farther south are more uneven, and present sometimes considerable eminences, frequently bare of vegetation, exhibiting a surface of white indurated marl or soft limestone, the intervening vallies affording a deep rich soil. Oyster shells in various states of preservation, and other marine shells occur on, and beneath the surface, throughout this formation. Near Pontitoc and in other localities considerable ledges of rock occur, composed almost entirely of a conglomerate of oyster shells of remarkable size, and preserving their form and character very perfectly.



THE SWEDENBOURGENS.—It is rather surprising to observe how little is known of the general and peculiar principles of this sect, even by those who associate with them as neighbors in ordinary business affairs; and the more especially when it is considered that they, as a class, have been at considerable expense to bring their doctrines into notice, by the publication of many tracts and other cheap publications. We have often heard of them, and have generally entertained a very favorable opinion of their piety, though of their peculiar faith we knew but little, until a friend some time since put into our hands one of their new publications, which gave rather a full explanation of their theological views, and such arguments as they found it convenient to produce in their support. We learn from this work that they consider their church to be *the* kingdom of heaven; the fulfilment of the predictions of the second coming of Christ, and of the new heavens and new earth, &c. On a careful, and somewhat critical perusal of the arguments on the subject, we observed, perhaps with regret, an extraordinary sparseness of Scripture quotations, and that of the few passages referred to, some of them were strangely misquoted, or translated to give a very different sense from that of our ordinary version. Having been accustomed to advocate the Bible, the whole Bible, and nothing contrary or unauthorized by the Bible, we could find no satisfactory foundation for confidence in the correctness of their theory, however highly we might appreciate the sincerity of their motives and profession. We would advise those, however, who are honestly seeking the truth in its purity, to give the Swedenbourgens a candid hearing, closely comparing their arguments with the Scriptures, and then judge how far their tenets and theory may be consistent with divine truth, as revealed in the sacred pages.

Dr. Tyng on the Bible.

The following extract from the remarks of Dr. Tyng, at the last Anniversary of the American Bible Society, breathe a noble spirit of Christian independence and liberality. We transfer them to our columns, believing they will find a response in the hearts of our readers:

"The Bible is itself supreme. It does not need a ministry to interpret it—it does not tolerate a ministry to stand upon its ground. Every one, the highest and the lowest, the poorest cottage girl who sits by her door and knows nothing but the truth as it is in Christ—

'A truth the brilliant Frenchman never knew,'

must read it for herself, and interpret it for herself, and is as truly responsible for the manner in which she applies its truths as the most learned of its readers. When I go to that book, God speaks to me. I need no succession—I go at once to the fountain-head. It is not man that speaks—it is God who speaks; and he speaks to me as if there were but one single Bible on the Earth, and that Bible an angel had come down and bound upon my bosom. It is *my* Bible. It was written for me. It is the voice of God holding communion with my own soul, and never will I forfeit my right to commune with God. Nor is that communion to be held before councils, or in open temples, or in the presence of sects and priests, and through the intervention of others. It is an act to be transacted in the most secret sanctuary of the Lord. No sects, no priestly interference, can be admitted. It is an affair between God and my soul, and as Abraham bid the young men abide with the ass at the foot of the mountain, so will I ascend and go to meet God alone upon the top. I wish my views upon this point, thrown out as they are before this large assembly, to be stated clearly and to be distinctly understood, and the press may proclaim them to the world, as those of a man who speaks for himself, and not under the constraint of creeds, or the impositions of men. That book is the book of God; and when I go out and commune with it, I hold communion with my God. I am Moses, just come down from the burning mountain, his face shining with joy and the glory of God. I am Isaiah, and have come from the golden courts where the seraphim and the cherubim shout hallelujah to the Lord God of Hosts. I am Paul, and have seen the third heavens opened, and can tell what is uttered there, and have seen glories ineffable which no tongue can tell nor imagination conceive. I am John, and have laid my head upon the Master's bosom, and have caught, warm with his breath, the very whispers of the sweet counsels which he has breathed into my ear. It is not from any intervention or interpretation of man, that it derives its power. God gave it to me. He made it and he has preserved it. Nor does the fact that he transmitted it for centuries through the agency of unclean birds, as Elijah was fed by the ravens of the valley, change its character. It is still bread and food for all the world."—*Bible Advocate.*

The love of God appears in his law, inasmuch as by our obeying the command to love Him who is infinitely lovely, we are made like him; and this will make as happy in ourselves, when we are made happy in him.

The announcement of the arrival of the Hibernia was placed on the bulletin of the N. Y. Sun, *ten minutes earlier* than the communication was made by the telegraph at Boston.

The new tariff law has passed the Senate by a majority of *one;* and when the final decision was called for in the House of Representatives, it was sustained by a majority of only *one.*

The steamboat fare between Quebec and Montreal, Ca., has been reduced to one dollar, including meals. Whether the reduction is in consequence of extra competition, we are not informed.

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The Farmer turned Soldier.

My father was a Farmer good,
With corn and beef in plenty,
I mowed and hoed, and held the plough,
And longed for one-and-twenty.

For I had quite a martial turn,
And scorned the lowing cattle:
I burned to wear a uniform,
Hear drums and see a battle.

My birth-day came, my father urged,
But stoutly I resisted;
My sister wept, my mother prayed,
But off I went and 'listed.

They marched me on, through wet and dry,
To tunes more loud than charming,
But lugging knapsack, box and gun,
Was harder work than farming.

We met the foe—the cannons roared,
The crimson tide was flowing,
The frightful death-groans filled my ears,
I wished that I was mowing.

I lost my leg—the foe came on,
They had me in their clutches;
I starved in prison till the peace,
Then hobbled home on crutches.

BLACKBERRY SYRUP.—This syrup is said to be almost a specific for the summer complaint. In 1832, it was successful in more than one case of the cholera. The fruit is now in market, and the present is the proper time to make it. To two quarts of juice of blackberries, add one pound of loaf sugar, half dozen nutmegs, half ounce cinnamon, quarter ounce cloves, quarter ounce allspice, pulverised. Boil all together for a short time, and when cold, add a pint of fourth proof brandy. From a teaspoonful to a wine glass, according to the age of the patient, till relieved, is to be given.

REASON FOR FIXING ON THE ZERO POINT OF THE THERMOMETER.—When Fahrenhoit fixed on the gradation of his thermometer, the greatest degree of cold then known was produced by a mixture of salt and snow. Fahrenheit supposed, therefore, that when the bulb of his instrument was immersed in this mixture, the heat or caloric was entirely abstracted from the mercury! The point 0 or zero, was thus established. Since that time, freezing mixtures have been discovered, reducing the thermometer to 100 degrees or more, below this point; and Capt. Parry actually found the temperature of the air in Melville Island, on one day during his wintering on that island, so low as 55 degs. or 60 degs. below 0.

When sorrow embitters our days,
And poisons each source of enjoyment,
The surest specific, Ben says,
For trouble and grief, is—employment.

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(Removed from 93 Gold st., to)
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Jobbing of all kinds, done at the shortest notice.

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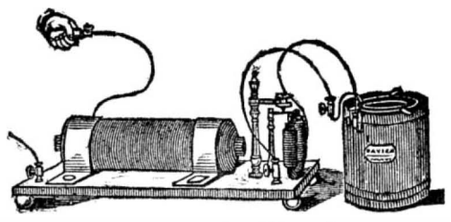
Charges moderate. A reasonable discount made for cash. 22tf



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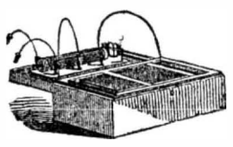
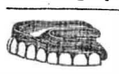
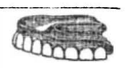


The subscriber takes this opportunity of apprising the public that, at the last Fair held by the American Institute, he obtained the premium and medal for the best Electro-galvanic machine on exhibition. Since then he has made a new and very important discovery in these by which he can give out the pure magnetic fluid, or the primary current. Its efficacy is truly wonderful.

SAMUEL B. SMITH,
Inventor and manufacturer, 297 1-2 Broadway, left side going up. 43to52*



TEETH.



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Natural and mineral teeth inserted from	$1 to 3 50
Decayed teeth filled with white cement, and warranted useful for mastication,	50
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Teeth extracted with less than half the usual pain	50

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References can be had from several hundred families, also to the medical faculty of the city. 10tf

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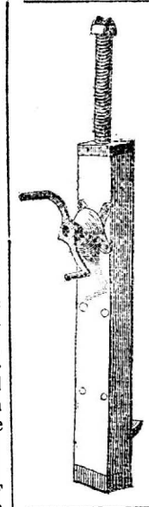

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The improvement consists in being able to use either end of the screw, as occasion requires.

It is capable of raising the heaviest Locomotive with ease, being portable, strong, and powerful, and not likely to get out of order.

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A fine assortment of grindstones.

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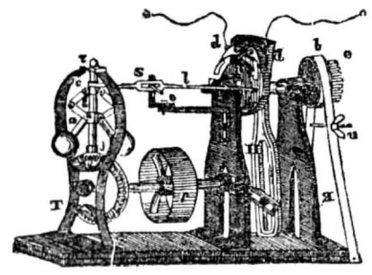

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Improved Patent Regulator.

N. CHOLFIELD, Norwich, Conn., continues to manufacture, and keeps constantly on hand, his Improved Patent Regulators, for water-wheels and steam engines; he makes five different sizes, indicated by numbers comencing at the largest size, which is called No. 1, &c..

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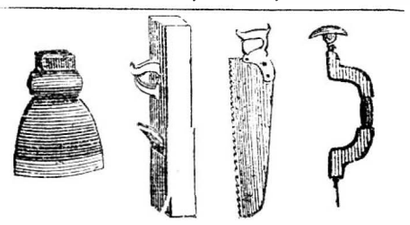

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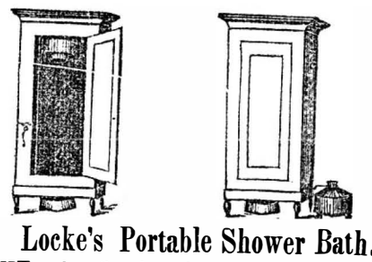

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